

REFERENCE MANUAL

Modular **C**omposition **S**ystem

8600 OPTION

(Addendum)

Part No. 214818-002

DECEMBER 1981

FOREWORD

This manual describes the configurations and operating procedures of the **Modular Composition System to 8600** interface. Due to the many forms of applications, the recommended procedures should be adhered to.

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Prepared By

Technical Product Support
200 Ballardvale Street
Wilmington, MA 01887

Type Style

Garth Graphic
Roman, Bold and Italic

Printed in U.S.A.

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This manual describes the procedure for interfacing the **MCS...Modular Composition System** on-line to the **8600...Phototypesetter**. When on-line to the MCS the 8600 is operated in slave mode and all justification and hyphenation will be calculated by the MCS.

Also described is a new 8600 Communications Controller. This replaces the Dataport and handles two MCS interfaces with automatic multiplexing between inputs. This controller, together with the MCS capability of two input terminals, allows one 8600 to support up to four MCS input stations on-line simultaneously.

This manual is intended to be a supplement to existing MCS and 8600 operating manuals. Before interfacing these systems operators should be familiar with the operation of each unit.

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Slave Typesetting software #695525-XXXX* must be resident in the 8600. The Communications Controller Mod Kit #1855 must also be installed.

NOTE: When the Communications Controller Mod Kit is installed in the 8600 it is necessary to include the Communications Controller Software #695526-XXXX* if the 8600 is to be used for H&J on-line input.

FONTS

Fonts for operation with MCS are 8600 EditWriter Emulator Pi Layouts. These must, however, be new versions of emulator fonts. The new style fonts are identified by their Complement Numbers. The new Complement Numbers will correspond to the layout numbers such as 0500, 0501, 0549, etc. Old emulator fonts with Complement Numbers 5535, 5524, etc. are not compatible and must be replaced with new fonts.

Fonts ordered for an MCS to 8600 installation must include a master diskette, whatever emulator pi diskettes are desired and a width diskette to load the widths into the MCS. If an existing 8600 installation is being updated for MCS compatibility, the appropriate emulator pi and width diskettes for master diskettes previously purchased may be ordered separately.

MCS

MCS User Program Disks used on MCS's that interface to 8600 typesetters should be constructed with 8600 driver modules to take advantage of all 8600 features. This should be taken care of when User Program Disks are constructed with the System Generator Program as described in the MCS Utility and Set-Up Reference Manual #214814-001.

INTERFACE CABLE

The 8600's communications controller connects on-line to the standard MCS interface cable. The cable may be connected to either serial 1 or serial 2 input on the 8600.

- * The XXXX in software part numbers is used to indicate the revision level will change from time to time. The first six digits are the basic part number and the last four will change each time the program is updated.

The hardware for the communications controller does not have RS-232-C compatible connectors. If an RS-232-C cable is to be connected to the 8600 serial port an adapter mod kit Compugraphic Part Number **1888-501** is required.

The following constraints exist when interfacing the MCS to the 8600 typesetter:

1. The degree of Pseudo Italic is not variable. The degree of slant will always be 12 degrees on the 8600 output copy. Any MCS files containing a pseudo italic setting other than 12 degrees will give an error when typeset.
2. The MCS assumes the 8600 has a 68 Pica machine width. If the 8600 on-line is a 45 Pica unit it is the operator's responsibility to be sure no jobs exceed the 8600's maximum line length.
3. The number of fonts available per job is 16. The number of fonts available in the 8600 may be up to 255 but only 16 may be put in each MCS dress file.
4. The number of tabs available per job is twenty.

SPECIAL KEY COMMANDS

Several new 8600 Special Key Commands are available to the operator. These commands may be set as default values or entered via the control panel.

- 616** — Puts the 8600 into the Auto Multiplex Mode when in the External 1 input position.
- 626** — Puts the 8600 into the Auto Multiplex Mode when in the External 2 input position.
- 390** — Used to restore H&J operation when the 8600 has been put in Slave Mode via a **391** or **392** command.
- 391** — Activates the 8600's conventional (non-MCS) Slave Typesetting software.
- 392** — Activates the 8600's MCS Slave Typesetting software.
- 311** — Activates the 695526-XXXX H&J 8600 software for the new communications controller. Once the communications controller is installed this should be set as a default if the 8600 is to be used for H&J on-line input.

Note: The Auto Multiplex Mode (**616** or **626** Special Key Command) is available only when two MCS Controllers are on line. Multiplexing is not allowed using any other input source.

ERROR CODES

The following are new 8600 Control Panel Messages:

- 720** — *Take in progress* — Occurs when a "Start of Take" is received while a take is in progress. The take will be terminated and the photo unit will continue.

- 722** — *Reverse Type not on* — An attempt was made to turn Reverse Type off when it was not on. The command will be ignored and the photo unit will continue.
- 724** — *No rule width / depth specified* — An "Insert Rule" command was specified without previously specifying a width or depth. The command will be ignored and the photo unit will continue. No rule will be drawn.
- 726** — *Window change while in reverse type* — The command will be ignored and the photo unit will continue using the previously specified window limit.
- 728** — *Illegal resolution* — A value has been received in units unacceptable to the photo unit. The command will be ignored and the photo unit will continue.
- 732** — *No font specified* — The photo unit will use the default font and continue.
- 734** — *No point / set size specified* — The photo unit will use the default point/set size and continue.
- 736** — *Window out of range* — The command will be ignored and the photo unit will continue.
- 738** — *Synchronization error* — The photo unit has lost proper protocol synchronization and is unable to recognize subsequent commands. This will cause unpredictable results until synchronization is again established.

Modular Composition System

No special considerations are required to interface to the 8600. MCS dress files are constructed in the usual method. The MCS operator does not need to know the font locations in the 8600 because the MCS requests fonts by part numbers rather than by location.

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When loading fonts in the 8600, for interfacing to the MCS, the following limitations apply. Conventional 8600 fonts must be kept in separate locations from the emulator (MCS) fonts. If the 8600 is receiving input from an MCS and another source, each master typeface would be loaded in two locations. One location with conventional pi layouts and another for the emulator pi layouts. A further consideration is special emulator pi layouts such as 1614 layouts. These require another font position separate from both the conventional and standard emulator pi locations. Thus the 8600 may have to be loaded with each master font disk in several locations with different pi layouts at each location.

When the 8600 is in **392** (MCS slave) mode and **Reset**, **Run** is keyed in, the 8600 will enter a routine to create a list of available MCS compatible fonts. This will take up to three minutes, depending on the number of fonts loaded into the 8600. This list is reassembled every time the 8600 is reset. To limit the delay this causes the 8600 operator should use **Pause** rather than **Reset** whenever possible.

To receive MCS slave input the 8600 must have **392** (MCS slave input) mode active. The proper serial input port must be enabled via **614**, **615**, **624**, **625** special key access if one MCS is on line or via **616**, **626** special key access if two MCS systems are being multiplexed. All of these parameters may be set as defaults or keyed in via the control panel. When the parameters are set the 8600 operator presses **Run** and the 8600 is ready to receive.

When in the single input mode the 8600 will typeset any data received on the port it is monitoring. If the 8600 is in a multiplexing mode it will look for data on first one serial input port then the other, switching every 10 seconds. Once the 8600 receives data on a port it will stay locked on to that port until all the data available is typeset. When the 8600 receives no data on an input port for 10 seconds it will look to the other serial port for input and resume switching between ports.

With the release of the "Revision 1003" MCS operating program there is now a special driver for the 8600. This allows full utilization of 8600 features such as Point Size and Leading limits which exceed the 8400 typesetter.

The following is a list of the parameters available in the 8600 MCS program that differ from standard MCS parameters:

Point Size — Maximum Point Size is 127.5. With limitations as described in the 8600 Applications Manual.

Set Width — Maximum character width is 127.5 points.

Depth of Rules — On ruled items such as Vertical Rules, Boxes, Combs, Horizontal Matrices and Vertical Matrices the maximum depth is 1736 points.

Weight of Rules — Maximum Rule Weight is 96 points.

Advance Leading — Maximum Advance is 1736 points.

Reverse Leading — Maximum Reverse is 1736 points.

Column Depth — Maximum Column Depth, when in MCO mode, is 1736 points.



200 Ballardvale Street
Wilmington, MA 01887